

requirements of this subchapter when examined by the Bureau of Explosives and approved by the Associate Administrator.

(g) Electrolyte, acid, or alkaline corrosive battery fluid, packed with storage batteries wet or dry, must be packed in one of the following specification packagings:

(1) In 4C1, 4C2, 4D, or 4F wooden boxes with inner receptacles of glass, not over 4.0 L (1 gallon) each with not over 8.0 L (2 gallons) total in each outside container. Inside containers must be well-cushioned and separated from batteries by a strong solid wooden partition. The completed package must conform to Packing Group III requirements.

(2) Electrolyte, acid, or alkaline corrosive battery fluid included with storage batteries and filling kits may be packed in strong rigid outer packagings when shipments are made by, for, or to the Departments of the Army, Navy, or Air Force of the United States. Packagings must conform to military specifications. The electrolyte, acid, or alkaline corrosive battery fluid must be packed in polyethylene bottles of not over 1.0 L (0.3 gallon) capacity each. Not more than 24 bottles, securely separated from storage batteries and kits, may be offered for transportation or transported in each package.

(3) In 4G fiberboard boxes with not more than 12 inside packagings of polyethylene or other material resistant to the lading, each not over 2.0 L (0.5 gallon) capacity each. Completed packages must conform to Packing Group III requirements. Inner packagings must be adequately separated from the storage battery. The maximum authorized gross weight is 29 kg (64 pounds). These packages are not authorized for transportation by aircraft.

(h) Dry storage batteries or battery charger devices may be packaged in 4G fiberboard boxes with inner receptacles containing battery fluid. Completed packagings must conform to Packing Group III requirements. Not more than 12 inner receptacles may be packed in

one outer box. The maximum authorized gross weight is 34 kg (75 pounds).

[Amdt. 173-224, 55 FR 52643, Dec. 21, 1990, as amended at 56 FR 66270, Dec. 20, 1991; 57 FR 45463, Oct. 1, 1992; Amdt. 173-235, 58 FR 50502, Sept. 27, 1993; Amdt. 173-234, 58 FR 51532, Oct. 1, 1993; Amdt. 173-246, 60 FR 49110, Sept. 21, 1995; 64 FR 10777, Mar. 5, 1999; 65 FR 58629, Sept. 29, 2000; 66 FR 45379, 45380, Aug. 28, 2001; 68 FR 45033, July 31, 2003]

§ 173.160 Bombs, smoke, non-explosive (corrosive).

Bombs, smoke, non-explosive may be shipped provided they are without ignition elements, bursting charges, detonating fuses or other explosive components. They must be packaged in wooden (4C1, 4C2), plywood (4D) or reconstituted wood (4F) boxes, or plywood drums (1D), which meet Packing Group II requirements.

§ 173.161 Chemical kits and first aid kits.

(a) Chemical kits and First aid kits must conform to the following requirements:

(1) The kits may only contain hazardous materials for which packaging exceptions are provided in column 8(A) the § 172.101 Table of this subchapter.

(2) The kits must be packed in a strong outer packaging conforming to the packaging requirements of subpart B of this subchapter.

(3) The kits must include sufficient absorbent material to completely absorb the contents of any liquid hazardous materials contained in the kits. The contents must be separated, placed, or packed, and closed with cushioning material to protect them from damage.

(4) The contents of the kits must be packed so there will be no possibility of the mixture of contents causing dangerous evolution of heat or gas.

(5) The packing group assigned to the kits as a whole must be the most stringent packing group assigned to any individual substance contained in the kits.

(6) Inner receptacles containing hazardous materials within the kits must not contain more than 250 ml for liquids or 250 g for solids per receptacle.

(7) The total quantity of hazardous materials in any one outer package must not exceed either 10 L or 10 kg.

§ 173.162

(b) Chemical kits and First aid kits are excepted from the specification packaging requirements of this subchapter. Chemical kits and First aid kits are also excepted from the labeling requirements of this subchapter except when offered for transportation or transported by air. In addition, Chemical kits and First aid kits are not subject to subpart F of part 172 of this subchapter (Placarding), part 174 (Carriage by rail) of this subchapter except § 174.24 (Shipping papers), and part 177 (Carriage by highway) of this subchapter except § 177.817 (Shipping papers). Kits that meet the definition for a consumer commodity in § 171.8 of this subchapter may be transported in accordance with the exceptions for ORM materials in § 173.156.

[Doc. No. 2002-13658, 68 FR 45033, July 31, 2003]

§ 173.162 Gallium.

(a) Except when packaged in cylinders or steel flasks, gallium must be packaged in packagings which meet the requirements of part 178 of this subchapter at the Packing Group I performance level for transportation by aircraft, and at the Packing Group III performance level for transport by highway, rail or vessel, as follows:

(1) In combination packagings intended to contain liquids consisting of glass, earthenware or rigid plastic inner packagings with a maximum net mass of 15 kg (33 pounds) each. The inner packagings must be packed in wood boxes (4C1, 4C2, 4D, 4F), fiberboard boxes (4G), plastic boxes (4H1, 4H2), fiber drums (1G) or removable head steel and plastic drums or jerricans (1A2, 1H2, 3A2 or 3H2) with sufficient cushioning materials to prevent breakage. Either the inner packagings or the outer packagings must have an inner liner that is leakproof or bags of strong leakproof and puncture-resistant material impervious to the contents and completely surrounding the contents to prevent it from escaping from the package, irrespective of its position.

(2) In packagings intended to contain liquids consisting of semi-rigid plastic inner packagings of not more than 2.5 kg (5.5 pounds) net capacity each, individually enclosed in a sealed, leak-

49 CFR Ch. I (10-1-05 Edition)

tight bag of strong puncture-resistant material. The sealed bags must be packed in wooden (4C1, 4C2), plywood (4D), reconstituted wood (4F), fiberboard (4G) or plastic (4H1, 4H2) boxes or in fiber (1G) or steel (1A2) drums, which are lined with leak-tight, puncture-resistant material. Bags and liner material must be chemically resistant to gallium.

(3) Cylinders and steel flasks with vaulted bottoms are also authorized.

(b) When it is necessary to transport gallium at low temperatures in order to maintain it in a completely solid state, the above packagings may be overpacked in a strong, water-resistant outer packaging which contains dry ice or other means of refrigeration. If a refrigerant is used, all of the above materials used in the packaging of gallium must be chemically and physically resistant to the refrigerant and must have impact resistance at the low temperatures of the refrigerant employed. If dry ice is used, the outer packaging must permit the release of carbon dioxide gas.

(c) Manufactured articles or apparatuses, each containing not more than 100 mg (0.0035 ounce) of gallium and packaged so that the quantity of gallium per package does not exceed 1 g (0.35 ounce) are not subject to the requirements of this subchapter.

[64 FR 10777, Mar. 5, 1999; as amended at 66 FR 33430, June 21, 2001]

§ 173.163 Hydrogen fluoride.

Hydrogen fluoride (hydrofluoric acid, anhydrous) must be packaged in a specification 3, 3A, 3AA, 3B, 3BN, 3E, or 4A cylinder; or a specification 4B, 4BA, or 4BW cylinder if the cylinder is not brazed. Filling density may not exceed 85 percent of the cylinder's water weight capacity. In place of the periodic volumetric expansion test, cylinders used in exclusive service may be given a complete external visual inspection in conformance with part 180, subpart C, of this subchapter, at the time such periodic requalification becomes due. Cylinders removed from hydrogen fluoride service must be condemned in accordance with § 180.205 of this subchapter and, at the direction of